

# SNOWY RIVER ALLIANCE Inc.

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Thursday 17<sup>th</sup> March 2011

Committee Secretary  
Senate Legal and Constitutional Committee  
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Parliament House  
Canberra ACT 2600  
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RE: Inquiry into the Provisions of the Water Act 2007

Snowy River Alliance welcomes the opportunity to comment on the provisions of the Water Act 2007 (the Act), with particular reference to the direction it provides for the development of a Basin Plan.

**1. The Snowy River is inextricably linked with the Murray-Darling Basin through the Snowy Hydro Scheme, which continues to divert unsustainable volumes of water from the Snowy River and its montane tributary rivers and streams, west to the Murray and Murrumbidgee Rivers. The Murray-Darling Basin Plan must therefore include the Snowy Scheme and identify sustainable diversion limits for the Snowy River and its tributaries.**

The economic benefits gained by the Murray/Murrumbidgee irrigation communities from the continued diversion of more than 95% of the upper Snowy River since 1967, has come at a severe environmental cost for the ecology and biodiversity of the Snowy River.

The Commonwealth *Water Act 2007*(the Act), s.21 (2) states that the Murray-Darling Basin Plan must: (a) *be prepared having regard to:*

(i) *the fact that the use of the Basin water resources has had, and is likely to have, significant adverse impacts on the conservation and sustainable use of biodiversity; and*

(ii) *the fact that the Basin water resources require, as a result, special measures to manage their use to conserve biodiversity; and*

(b) *promote sustainable use of the Basin water resources to protect and restore the ecosystems, natural habitats and species that are reliant on the Basin water resources and to conserve biodiversity.*

The Snowy River is a Basin water resource that has been used unsustainably for more than four decades (and continues to be used unsustainably) and therefore must be considered in the Plan.

The Act s22 (1) also states that mandatory content of the Basin Plan must include: *A description of the Basin water resources and the context in which those resources are used. The description must include information about (a) the size, extent, connectivity, variability and condition of the Basin water resources.*

The Snowy River is inextricably connected to the Murray-Darling Basin and therefore must be included in the Plan.

According to the Act (s.21 (6)), the Basin Plan must not be inconsistent with the provisions of the Snowy Water Licence. The Snowy Water Licence requires Snowy Hydro Ltd to release a minimum of 1026GL/yr to the Murrumbidgee River and 1062GL/yr to the Murray River. However the Snowy River contributes more than half of this total volume<sup>1</sup>. Such massive diversions from the upper

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<sup>1</sup> Department of Industry, Science and Resources, *The Snowy Mountains Hydro-Electric Authority, Draft Environmental Impact Statement*, June 2000, Fig 4.6

Snowy River into the Murray/Murrumbidgee system have resulted in an environmental catastrophe for the Snowy River and must be reviewed.

#### **a. Snowy River below Jindabyne Dam**

In 1996 The Expert Panel<sup>2</sup> identified that the return of the equivalent of 28% MANF to the Snowy River below Jindabyne Dam was the MINIMUM environmental flow required to restore the river. This figure has not been reviewed since.

In 2000 the NSW, Victorian and Commonwealth Governments signed the Heads of Agreement (followed by legislation in 2002) to restore 212GL/yr (or 21% Mean Annual Natural Flow<sup>3</sup> (MANF)) to the Snowy River below Jindabyne Dam within ten years and increased flows to the Snowy Montane Rivers including the upper Snowy River below Guthega Dam and Island Bend Pondage.

However progress on restoring increased flows to the Snowy River has fallen far short of the legislated targets.

Two years ago, the Snowy Scientific Committee identified<sup>4</sup> that flows to the Snowy River below Jindabyne Dam have remained so low such that the river was in effect on 'life-support'. In March this year, the NSW Fisheries Scientific Committee made a proposed determination to list the Aquatic Ecological Community in the Natural Drainage System of the Catchment of the Snowy River in NSW as an ENDANGERED ECOLOGICAL COMMUNITY in Part 3 of Schedule 4 of the NSW Fisheries Management Act 1994.

Following an intergovernmental Snowy agreement announced on 11<sup>th</sup> August 2010 by the then Federal Minister for Water Penny Wong, to pay out the Mowamba Borrowings Account, Snowy River flows below Jindabyne Dam this Water Year 2010-11 will still only be around 6% MANF i.e. far less than the legislated scheduled target increased flow of 15% by June 2009 or 21% by 2012; even further from long-term (un-funded) target of 28% MANF below Jindabyne Dam.

Water for Rivers anticipates obtaining entitlements for the Snowy up to 212GL/yr (or 21%MANF) by 2015<sup>5</sup>, however a significant proportion of those entitlements are general security or low reliability, which return little real water to the Snowy except in very wet years. It is unlikely therefore that the Snowy below Jindabyne Dam will ever receive flows greater than 15% MANF on a consistent annual basis. Even if 21% MANF in real water was released annually below Jindabyne Dam that means nearly 80% of the upper Snowy flow will still to be diverted west to the Murray system. That volume of diversion is the reverse of the environmental flow rules detailed in the *NSW Water Management Act 2000*, which requires between 56-80% of flow to be retained in other regulated rivers. It is also in stark contrast to reductions in diversions recommended in the Guide to the proposed Basin Plan.

Water for Rivers has faced a tripling of costs since it was established in 2003 due to increased competition for water recovery projects from other government funded water initiatives. Additional funding of \$50 million provided by the Commonwealth in 2007 is less than adequate to ensure that 21% in real water will be returned to the Snowy and the three governments have still not identified

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<sup>2</sup> Erskine, W. et al, 1996, *Expert Panel Environmental Flow Assessment of the Snowy River below Jindabyne Dam*, Snowy Genoa Catchment Management Committee, February 1996.

<sup>3</sup> In contrast to the Snowy legislation, which has only funded the return of 21% to the Snowy River, the NSW Water Management Act 2000 requires between 56-80% of the average annual flow to be retained in other regulated rivers.

<sup>4</sup> Snowy Scientific Committee (2008). *Adequacy of environmental flows to the Snowy River*. Report SSC\_1. Prepared by the Snowy Scientific Committee for the Water Administration Ministerial Corporation, Canberra. October 2008; and Snowy Scientific Committee (2009). *Environmental releases from Jindabyne Dam: Recommendations for 2009-2010*. Report SSC\_2. Prepared for the NSW Water Administration Ministerial Corporation. Canberra. June 2009.

<sup>5</sup> Snowy Scientific Committee presentation Snowy River Day Dalgety 28<sup>th</sup> August 2010.

either the mechanism or timeline to deliver 28%. The shortfall in funding required by Water for Rivers reflects the lack of real commitment from the governments to restore the ecological health of the Snowy River.

In addition, tributary rivers of the Snowy River downstream of Jindabyne Dam in NSW and Victoria have experienced reduced inflows<sup>6</sup> of between 30-40% since 1970 (i.e. following the completion of Jindabyne Dam in 1967) such that the beneficial effect of the legislated increased flows from Jindabyne Dam, if ever delivered, will be nullified. Further reductions in inflows from predicted climate change impacts in future will compound the problem.

#### **b. Snowy River above Jindabyne Dam (in Kosciusko National Park)**

In regard to the montane Snowy River catchment above Jindabyne Dam, the Snowy Water Licence requires Snowy Hydro Ltd to make increased flows (as part of the Snowy Montane Rivers Increased Flows schedule<sup>7</sup>) to the upper Snowy River below Guthega Dam (Snowy River Perisher/Rams Flat) from the 2007/08 Water Year, and to the upper Snowy River below Island Bend Pondage (Snowy River Gungahlin) from the 2009/10 Water Year.

However NO environmental flows at all have been delivered to these sections of the upper Snowy River in Kosciusko National Park. Snowy Hydro Ltd has failed to modify the relevant montane aqueducts as required by the terms of its Licence<sup>8</sup> to enable the delivery of the Snowy Montane Rivers Increased Flows, in this case to the upper sections of the Snowy River.

Instead the annual allocation of Snowy Montane Rivers Increased Flows has been released into the Upper Murrumbidgee (2007/08)<sup>9</sup>, or a combination of releases into the Goodradigbee River below Goodradigbee weir, and into the Upper Murrumbidgee River below Tantangra Dam (in 2008/09<sup>10</sup>, 2009/10<sup>11</sup> and 2010/11<sup>12</sup>). In which case the releases end up back in the Murray/Murrumbidgee system.

In relation to the Eucumbene River, the main tributary of the Snowy River pre-Snowy Mountains Hydro-electric Scheme, we note that this river was never included in the original agreements and legislation to return environmental flows to the Snowy River. The Eucumbene Dam has a base passing flow release capacity of only 6 mgl/d, and no spills have occurred since construction<sup>13</sup> yet the Eucumbene River below the Dam is not scheduled to receive any environmental flow at all. This river is almost completely diverted to the Murray/Murrumbidgee.

Snowy River Alliance strongly recommends therefore that to comply with the requirements of s21 (2) of the Act the Murray-Darling Basin Plan must include the Snowy Scheme, specifically the Snowy River and all its montane tributary rivers and streams; and Sustainable Diversion Limits for the Snowy River and its upper or montane tributaries must be identified: a complete re-draft of the Snowy Water Licence must be undertaken. The Water Act 2007 must be amended to include the Snowy Scheme in the Basin Plan.

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<sup>6</sup> P.J Wheeler et al, *Morphological Change at the Snowy River Ocean Entrance, Victoria, Australia (1851-2008)*, Australian Geographer, vol 40, no 1, pp1-28, March 2009, p10, p22-23.

<sup>7</sup> Snowy Water Licence (2002), Schedule 3, Table 1, p62.

<sup>8</sup> Snowy Water Licence (2002) Schedule 3, Part Five, s19.1

<sup>9</sup> Snowy Hydro Ltd *Water Operations Report 2007-2008 Water year*, p19

<sup>10</sup> Snowy Hydro Ltd *Water Operations Report 2008-2009 Water year*, p 19.

<sup>11</sup> Pers. comm. Simon Williams NSW Office of Water 27 May 2010

<sup>12</sup> Snowy Scientific Committee (2010) *Environmental Releases from Jindabyne and Tantangra Dams: Recommendations for 2010-2011*. SSC\_3. Prepared for the NSW Water Administration Ministerial Corporation. Canberra. August 2010.

<sup>13</sup> R. Bevitt et al *Expert Panel Environmental Flow Assessment of various rivers affected by the Snowy Mountains Scheme*, May 1998, Report to the NSW Department of Land and Water Conservation, p56.

## 2. River Murray Increased Flows

The 2002 Snowy agreements also included funding for Water for Rivers to obtain 70GL/yr for the River Murray. However the Snowy Water Licence (Schedule 3, Part one, s1.2) determines that the River Murray Increased Flows annual allocation is stored as Above Target Water in Snowy Hydro Ltd's storages. Snowy Hydro Ltd has complete discretion over Above Target Water and has only made one release in 2005/06 of River Murray Increased Flows. Up to 30<sup>th</sup> April 2010, 58GL owed the River Murray Increased Flows had been withheld and the total would be much greater now<sup>14</sup>. This is water that was acquired by Water for Rivers, (and funded by the taxpayer), for the environmental benefit of the Murray River but instead the releases have been withheld by Snowy Hydro Ltd for its commercial advantage. It is completely inappropriate that Snowy Hydro's total control of Above Target Water for electricity generation and derivatives trading dictates the release (or non-release) of the River Murray Increased Flows.

In its current form the Snowy Water Licence undermines the objectives of *Water Act 2007* to restore the environmental health of the Basin. It is imperative that Snowy Hydro Ltd is not permitted to withhold the release of the River Murray Increased Flows annual allocation for its economic advantage at the expense of the environmental health of the River Murray. Snowy Hydro Ltd's total control of Above Target Water has not been in the best interests of judicious water management in general, for either the wider irrigation community or the environment and should be reviewed. The management of the water resources of the Snowy Scheme must be incorporated within the Murray-Darling Basin Plan and the Snowy Water Licence completely re-drafted to ensure improved environmental outcomes are delivered for the River Murray (and for all the rivers of the Scheme).

## 3. The Act reduces the volume of Snowy River Increased Flows in contravention of the 2002 intergovernmental Snowy agreement, the Snowy Water Inquiry Outcomes Implementation Deed (SWIOID), and the Snowy Water Licence, and must be amended.

The Mowamba River, a tributary of the Snowy River, which has its junction with the Snowy River downstream of Jindabyne Dam, is diverted via Mowamba Aqueduct from Mowamba Weir into Jindabyne Dam. This aqueduct also collects the waters of Cobbon Creek from Cobbon Creek weir en route to Jindabyne Dam. The first environmental flows were returned to the Snowy River on 28<sup>th</sup> August 2002 when Mowamba Aqueduct was de-commissioned permitting the Mowamba River to once again flow down its natural course to the Snowy. However Snowy Hydro Ltd re-commissioned the Aqueduct on 31<sup>st</sup> January 2006, effectively cutting off the Snowy from its surrogate natural headwaters. The non-regulated flows or spills over Mowamba weir (and Cobbon Creek weir) are included in the Snowy River Increased Flows as measured at the confluence of the Mowamba and Snowy River.

The Snowy Water Inquiry Implementation Outcomes Deed<sup>15</sup> (SWIOID) and the Snowy Water Licence<sup>16</sup> state that the base passing flow with respect to the Snowy River is: *the volume of 9GL per Water Year from Jindabyne Dam PLUS the non-regulated flow past the relevant Works on Mowamba River and Cobbon Creek prior to the Corporatisation Date*, and as such is to be included in the total Snowy River Increased Flows measured below the confluence of the Snowy and Mowamba Rivers.

However, in an apparent oversight, the Commonwealth *Water Amendment Act 2008* contradicts the prior intergovernmental agreement the SWIOID, and the Snowy Water Licence, and eliminates the non-regulated flow over Mowamba (and Cobbon Creek) weirs from the definition of total Snowy River Increased Flows. The Act (Schedule F s5) definition of Snowy River Excess Releases

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<sup>14</sup> To date the NSW Office of Water has not updated the Summary of Snowy/Murray entitlements and allocations on its Snowy Initiative website, despite the Water Year beginning on 1<sup>st</sup> May. However based on an environmental allocation ratio of 2:1 Snowy: Murray, the total of River Murray Increased Flows withheld would now be approximately 90GL..

<sup>15</sup> SWIOID 1.1 (6) (a)

<sup>16</sup> Snowy Water Licence s 1.1(8) (a)

determines that only the 9GL regulated base passing flow from Jindabyne Dam is included as the Snowy River base passing flow to be added to the Snowy River annual allocation. As a consequence any unregulated flow over Mowamba and Cobbon Creek weirs that occurs in any water year will have to be repaid to Snowy Hydro Ltd from the Snowy River annual allocation the following water year.

In effect, the Commonwealth *Water Act 2007* has reduced the long-term Snowy River Increased Flows by between 18<sup>17</sup>-24GL<sup>18</sup>, or 2% Snowy MANF, by excluding the non-regulated flows over Mowamba and Cobbon Creek<sup>19</sup> weirs. To exclude the spills, freshes and floods delivered to the Snowy River via Mowamba River from the total volume of Snowy River Increased Flows reduces the volume of total annual Snowy River increased Flows and is not only a breach of the intergovernmental agreements on the Snowy and the Snowy Water Licence but will have a serious detrimental environmental effect on the rehabilitation of the Snowy River.

Snowy River Alliance has received legal advice confirming that the definition of Snowy River Base Passing Flow as defined in the 2008 amendments to the *Water Act 2007* is inconsistent with the definition in the SWIOID and the Snowy Water Licence.

Please see NSW Environmental Defender's Office advice to Snowy River Alliance dated 11 January 2011 (Doc 110111pdf) sent with this submission.

**Snowy River Alliance strongly recommends that the Commonwealth *Water Act 2007* is immediately amended to include the non-regulated flow over Mowamba Weir and Cobbon Creek Weir as part of the total Snowy River Increased Flows, in order to be consistent with the Snowy Water Inquiry Outcomes Implementation Deed and the Snowy Water Licence and avoid reducing Snowy River Increased Flows.**

#### **4. The Murray-Darling Basin authority must investigate the economic benefits of returning the full 7,600GL to the environment.**

The Guide to the proposed Basin Plan has only assessed scenarios of returning from 3,000 to 4,000 GL to the environment. The return of 7,600 GL however was identified as most likely to likely to deliver all the environmental objectives of the *Water Act 2007*.

The Snowy legislation only ever funded the return to the environment of approximately half the volume (in real terms) of the MINIMUM environmental flow identified in 1996, of 28% below Jindabyne Dam, required to restore the river. The volume of water returned to the Snowy River will be far short of the volume that is required to deliver significant long-term environmental improvement and thus will only provide limited economic benefits to Snowy communities.

In light of this, Snowy River Alliance recommends that the Murray-Darling Basin Plan must consider all scenarios in the range 3,000GL to 7,600 GL. In particular, the return of 7,600 GL to the environment of the Murray-Darling Basin must be considered, as it is the most likely to deliver real environmental improvements to the Murray-Darling system.

An assessment must be included in the Basin Plan of the economic benefits forthcoming from a healthy resilient Murray-Darling River system that would result from the return of 7,600GL to the environment.

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<sup>17</sup> Snowy River Flow Response Monitoring Project, *Derivation of staged environmental flow release volumes to the Snowy River downstream of Jindabyne Dam*, DIPNR Feb 2005, p 4.

<sup>18</sup> Department of Industry and Science 2000, *Draft EIS Corporatisation of Snowy Mountains Hydro-Electric Authority*, p44; Snowy River Flow Response Monitoring Project, 2004, *Fact Sheet No 2*, November 2004; Snowy Mountains Hydro-Electric Authority (SMHEA) 1998, *Spills and riparian releases, average scheme inflows and diversions 1905-1987 statistics and information design reports for structure and operational records based on G/D.G.E.N./31/1 and I.S./G-GEN/76/1*

<sup>19</sup> Cobbon Creek contributes only approx 0.5Gl/yr to the total unregulated Snowy River base passing flow.



**Conclusion:**

In conclusion, we wish to reiterate that the diversion of more than 90% of the waters of the upper Snowy River to the Murray-Darling Basin has caused and continues to cause considerable environmental degradation to the Snowy River.

The Snowy Water Licence is weighted towards Snowy Hydro Ltd's commercial interests of electricity generation and derivatives trading and does not prioritise the judicious management of the Snowy Scheme water resources in the best interests of the environment of the Snowy River (or the Murray). In its present form the Snowy Water Licence is totally inconsistent with the environmental objectives of the Commonwealth *Water Act 2007* which requires the Basin Plan to promote the sustainable use of ALL Basin water resources.

The *Water Act 2007* requirement (s21 (6)) that the Basin Plan must not be inconsistent with the Snowy Water Licence simply perpetuates the current unsustainable level of diversion from the Snowy River (as well as permitting Snowy Hydro Ltd to withhold releases of River Murray annual allocations). To exclude from the Basin Plan any consideration of the unsustainable contribution the Snowy River and its upper tributaries make to the total available water resources of the Murray-Darling Basin is to consign the Snowy Scheme and the Snowy River to a virtual Aqua Nullius.

The Water Act 2007 must be amended:

1. to ensure it does not reduce Snowy River Increased Flows;
2. to include the Snowy Scheme in the Basin Plan; and
3. to require that the Snowy Water Licence is re-drafted to be consistent with environmental objectives of the Water Act and that the Basin Plan includes sustainable diversion limits for all the major 12 rivers of the Snowy Scheme.

Yours sincerely

Louise Crisp

On behalf of Snowy River Alliance



Snowy River below Guthega Dam in Kosciusko National Park, 17 January 2011

*The Snowy River must flow again.*